MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Clarksburg

Drinking Water State Revolving Fund Green Project Reserve
Business Case

State Fiscal Year 2011 Intended Use Plan

Project Number DW-291234-01

Loan Date: October 5, 2011

Green Estimated Costs: $458,762

Water System Improvements for Clarksburg, Missouri
Business Case

Summary

- The purpose of the project is to provide a new elevated storage tank, well improvements by adding a chlorine feed system and replacement of approximately 14,545 feet of old cast-iron drinking water distribution lines throughout the city of Clarksburg. The replacement of the water mains for this project is to provide looping, to address system failures, such as water main breaks, and provide the expected capacity due to the forecasted growth.
- SRF Assistance Amount: $748,000.00
    - pipe replacement = $458,762 = 61.3%

Background

- The water source for the city's water system comes from a deep bedrock well with a total pumping capacity of approximately 288,000 gpd.
- The distribution system consists of 22,000 feet of water distribution lines consisting of polyvinyl chloride (PVC) pipes, cast iron pipes, and ductile iron pipes ranging in size from 1-inch to 8-inches in diameter. The distribution system also includes a 125,000 gallon standpipe.
- The existing water supply facilities are serving an estimated population equivalent of 390 people with an average daily water demand of approximately 28,530 gpd and a peak day demand of approximately 42,795 gpd. Recent history indicates that the water demands for the city have been steadily increasing. Future estimated population served for the year 2028 will be approximately 434 people with an average daily demand of approximately 29,300 gpd and 43,950 gpd for peak daily demand.

Results/Conclusion

- The upgrades help reduce the need for flushing by looping the system and reducing the water loss. Replacing the old, leaking water mains will increase water efficiency by decreasing the amount of water lost.